Air Quality Permitting
Statement of Basis

March 28, 2005

Tier II Operating Permit and Permit to Construct No. T2-040005

Boise Packaging & Newsprint L.L.C., Nampa

Facility ID No. 027-00026

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PUBLIC COMMENT

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Acronyms, Units, and Chemical Nomenclature

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	Environmental Protection Agency
HAPs	Hazardous Air Pollutants
IDAPA	A numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
MACT	Maximum Available Control Technology
MMBtu	Million British thermal units
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
PM_{10}	Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
Rules	Rules for the Control of Air Pollution in Idaho
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	synthetic minor
SO_2	sulfur dioxide
T/yr	Tons per year
$\mu g/m^3$	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01 Sections 404 and 200 *Rules for the Control of Air Pollution in Idaho (Rules)* for Tier II Operating Permits and Permits to Construct, respectively.

2. FACILITY DESCRIPTION

The facility utilizes paper, starch, and steam to manufacture corrugated sheet material. Steam is provided by two 13.69 MMBtu/hr natural gas-fired boilers. Starch is received and stored in a silo equipped with a baghouse to control dust emissions during material unloading. The process utilizes a corrugator equipped with single facers, a double-back glue unit, and pre-heaters. Corrugated stock is processed into containers in various processes that involve cutting, slotting, folding, gluing, and printing.

3. FACILITY / AREA CLASSIFICATION

Boise Packaging and Newsprint LLC (Boise Packaging) is defined as a minor facility because the facility's potential to emit all regulated air pollutants is less than all applicable major source thresholds. The AIRS facility classification is "B" and the SIC code defining the facility is 2653.

The facility is located within AQCR 64 and UTM zone 11. The facility is located in Canyon County, which is designated as attainment or unclassifiable for all criteria pollutants.

The AIRS information provided in Appendix C defines the classification for each regulated air pollutant at Boise Packaging. This required information is entered into the EPA AIRs database.

4. APPLICATION SCOPE

The facility has submitted an air quality permit application to streamline monitoring and recordkeeping requirements, change the facility's name and ownership, and increase the annual formaldehyde emissions rate by 16 lb/yr, or 0.008 T/yr.

4.1 Application Chronology

February 6, 2004	DEQ received application
March 4, 2004	DEQ determined application complete

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this Tier II operating permit and PTC. This analysis does not include two,13.69 MMBtu/hr natural gas-fired boilers, which received PTC exemption concurrence from DEQ on November 10, 1997.

5.1 Equipment Listing

- Corrugator
- Starch Storage Silo and Baghouse
- Scrap Cyclone and Baghouse
- Printing and Gluing Equipment

5.2 Emissions Inventory

The primary pollutants of concern are PM_{10}, VOCs, and formaldehyde. A detailed emissions inventory has been included in Appendix A. A brief summary of PM_{10} and VOC emissions are given in the following table.

Table 5.1 EMISSIONS INVENTORY

Source Description	VOC		PM_{10}	
	lb/day	T/yr	lb/day	T/yr
Corrugator	67.2	5.84	1.8	0.33
Starch Silo Baghouse	N/A	N/A	1.85	0.34
Scrap System Baghouse	N/A	N/A	2.56	0.22
Printing and Gluing	N/A	19	N/A	N/A

Total formaldehyde emissions from printing and gluing were estimated to be 0.13 T/yr. The estimated increase in formaldehyde emissions is due to a switch in glue type in 2002. The increase in formaldehyde emissions is 16 lb/yr, or 0.008 T/yr.

5.3 Modeling

A full impact analysis of formaldehyde, PM_{10}, and NO_X emissions was conducted based on the facility's potential to emit each of these pollutants. Formaldehyde was included in the analysis because the short term increase exceeded the respective net screening emissions level for formaldehyde. Correspondence between DEQ and the facility revealed that only a portion of the estimated formaldehyde emissions rate was associated with this permitting action. It turns out that the facility changed the type of glue it uses in 2002 which results in an annual increase of 16 lb/yr of formaldehyde emissions. Modeling of the increase demonstrates compliance with the AACC for formaldehyde.

DEQ performed a sensitivity analysis to address concerns regarding the adequacy of the facility's receptor grid as submitted. The sensitivity analysis adjusted the receptor grid to ensure that it did not make a difference in the demonstration of compliance. The results of the sensitivity analysis are summarized in Table 5.4. Appendix B contains the detailed modeling review.

Table 5.2 FULL IMPACT ANALYSIS RESULTS

Pollutant	Averaging Period	Facility Ambient Impact ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Total Ambient concentration ($\mu g/m^3$)	Applicable Standard ($\mu g/m^3$)	Percent of NAAQS
PM_{10}	24-hour	16.5	90	106.5	150	71
	Annual	4.7	25	29.7	50	59
NO_2	Annual	34.7[a]	32	66.7	100	67

[a] Assumes 100% of NO_x is $_{NO2}$

Table 5.3 TOXIC AIR POLLUTANTS ANALYSIS RESULTS

Pollutant	Averaging Period	Maximum Concentration (µg/m^3)	Regulatory Limit (ug/m^3)	Percent of Limit
Formaldehyde	Annual	0.54E-02	7.7E-02	20

Table 5.4 RESULTS OF THE SENSITIVITY ANALYSIS

Pollutant	Averaging Period	Submitted by Applicant (µg/m^3)	Sensitivity Analysis (µg/m^3)	Background Concentration (µg/m^3)	Total Ambient concentration (µg/m^3)	NAAQS (µg/m^3)	Percent of NAAQS
PM_{10}	24-hour	16.5	50.7	90	140.7	150	94
	Annual	4.7	11.8	25	36.8	50	74
NO_2	Annual	34.7[a]	31.4 [a]	32	63.4	100	63

[a] Assumes 100% of NO_x is $_{NO2}$

5.4 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this T2 and PTC.

IDAPA 58.01.01.201.....Permit to Construct Required

The proposed project subject to IDAPA 58.01.01.201 does not qualify for a PTC exemption; therefore, a PTC is required.

IDAPA 58.01.01.203.....Permit for New and Modified Stationary Sources

This regulation stipulates that the facility must demonstrate compliance with all applicable requirements, not cause or significantly contribute to a violation of the NAAQS, and comply with IDAPA 58.01.01.161. The facility has provided information to assure compliance with this requirement.

IDAPA 58.01.01.401.....Tier II Operating Permit

This permit authorizes the use of a potential to emit limitation to exempt the facility from Tier I permitting requirements.

IDAPA 58.01.01.404.....Procedure For Issuing Permit

The procedures for revision, issuance and approval apply to this permit.

40 CFR 60 .....New Source Performance Standards (NSPS)

No equipment associated with this modification is affected by any NSPS standards.

5.5 Fee Review

The permittee is a stationary source with permitted emission of 10 to less than 100 tons per year. Fees apply as per Table 5.1.

Table 5.5 TIER II PROCESSING FEE SUMMARY

Emissions Inventory	
Pollutant	**Permitted Emissions**
NO_x	0
SO_2	0
CO	0
PM_{10}	0.89
VOC	24.84
TAPS/HAPS	0.0
Total:	25.73
Fee Due	**$ 5,000.00**

5.6 Regional Review of Draft Permit

A draft was provided for the Boise Regional Office on December 14, 2004. Comments were received from the Boise Regional Office on December 29, 2004, and addressed.

5.7 Facility Review of Draft Permit

A draft was provided for the permittee on December 30, 2004. Comments were received from the permittee on January 19, 2005. Various typographical errors and formatting errors were addressed in the operating permit. A deletion of fuel oil requirements in the facility wide section of the operating permit was made because the permittee stated that it did not operate equipment that used fuel oil. A revision in Permit Conditions 4.6 through 4.10 in the operating permit was made in order to clarify language. A revision was made to the statement of basis in order to clarify that the operating permit did not contain the facility's boilers, which had received PTC exemptions.

6. PERMIT CONDITIONS

6.1 Permit Condition 3.4 contains the visible emission requirements for the corrugator process.

6.2 Permit Condition 3.3 contains the emissions limits for the corrugator, starch silo baghouse, and the scrap system baghouse. The operating conditions in Permit Conditions 3.5 and 3.6 for the starch silo and scrap system baghouses have been established to assure compliance with the emission limits of Permit Condition 3.3. The operating conditions in Permit Condition 3.7 for the corrugator have been established to assure compliance with the emission limits of Permit Condition 3.3.

6.3 Compliance with the starch silo baghouse operating condition in Permit Condition 3.5 will be demonstrated through the monitoring and recordkeeping requirements of Permit Conditions 3.8 and 3.9.

6.4 Compliance with the scrap system baghouse operating condition in Permit Condition 3.6 will be demonstrated through the monitoring and recordkeeping requirements of Permit Conditions 3.8 and 3.10.

6.5 Compliance with the corrugator operating condition in Permit Condition 3.7 will be demonstrated through the monitoring and recordkeeping requirements of Permit Condition 3.11.

6.6 Permit Condition 3.12 will be used by the permittee to demonstrate compliance with the opacity requirement in Permit Condition 3.4.

6.7 The operating conditions in Permit Conditions 4.4 and 4.5 for the printing and gluing process have been established to assure compliance with the emission limits of Permit Condition 4.3.

6.8 Compliance with the ink and ink additives operating conditions in Permit Condition 4.4 and 4.5 will be demonstrated through the monitoring and recordkeeping requirements of Permit Conditions 4.6 and 4.7.

6.9 Compliance with the glue usage operating conditions in Permit Condition 4.4 and 4.5 will be demonstrated through the monitoring and recordkeeping requirements of Permit Conditions 4.8 and 4.9.

7. PUBLIC COMMENT

A public comment period on the proposed Tier II operating permit permit to construct and application materials will be provided, in accordance with IDAPA 58.01.01.404.01.c.

8. RECOMMENDATION

Based on the review of the application materials and all applicable state and federal regulations, staff recommends that DEQ provide proposed Tier II Operating Permit and Permit to Construct No. T2-040005 for public comment as required by IDAPA 58.01.01.404.01.c.

ABC/sd Permit No. T2-040005

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APPENDIX A

EMISSIONS INVENTORY

APPENDIX B

MODELING REVIEW

APPENDIX C

AIRS INFORMATION TABLE

AIRS/AFS[a] FACILITY-WIDE CLASSIFICATION[b] DATA ENTRY FORM

Facility Name: Boise Packaging & Newsprint L.L.C.
Facility Location: Nampa
AIRS Number: 027-00026

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO_2	B							U
NO_x	B							U
CO	B							A
PM_{10}	B							A
PT (Particulate)	B							U
VOC	B							U
THAP (Total HAPs)	B							U
			APPLICABLE SUBPART					

[a] Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

[b] AIRS/AFS Classification Codes:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, **or** each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.

SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.

B = Actual and potential emissions below all applicable major source thresholds.

C = Class is unknown.

ND = Major source thresholds are not defined (e.g., radionuclides).